BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Periodic Reporting   Docket No. RM2016-1
(Proposal Eleven)

PUBLIC REPRESENTATIVE MOTION
FOR ISSUANCE OF INFORMATION REQUEST

(October 23, 2015)

Pursuant to Rules 39 C.F.R. §3001.21(a) and 39 C.F.R. §3007.3(c), the Public
Representative requests that an Information Request be issued to obtain additional
clarifying data and explanation from the Postal Service concerning its proposal to
change the statistical estimator for revenue, pieces, and weight (RPW) for the digital
letter sampling in the Origin-Destination Information System – Revenue, Pieces and
Weight (ODIS-RPW) system.[1] Responses to the questions posed below are intended to
enhance understanding of Proposal Eleven so as to allow participants to provide more
constructive comments and evaluate whether the proposal meets applicable legal and
regulatory requirements. Obtaining this information will also contribute to a better
understanding of how the Postal Service has interpreted Commission rules and allow
the Commission to make a fully informed, reasoned determination on whether Proposal
Eleven meets applicable legal and regulatory requirements, including 39 U.S.C.
§3652(e)(2) and 39 C.F.R. part 3050.11.

Proposed Questions

1.   On page 2 of Proposal Eleven, the Postal Service states that "[t]he digital letter
mail estimates utilizing the ratio estimator applied to the digital letter mail sampling

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[1] *See* Petition of the United States Postal Service Requesting Initiation of a Proceeding to Consider a
Proposed Change in Analytical Principles (Proposal Eleven), October 7, 2015.

frame would be combined with direct expansion estimates from the non-digital sampling frame."

    a. As stated in the Commission Order No. 2739, "approximately 9 percent of MEPs [Mail Exit Points] would begin digitally capturing the images of letter-and card-shaped mail… The remaining portion of MEPs would continue to employ the existing manual sampling techniques." [2]   Please confirm that the proposed ratio estimator will be applied to the 9 percent of MEPs only. If not confirmed, please explain.

    b. Please clarify (by providing a detailed methodology or by using an illustrative example) how the Postal Service will be combining the estimates for the digital and non-digital sampling frames.

2. On page 7 of Proposal Eleven, the Postal Service states: "For each MEP assigned to the digital letter mail sampling frame, auxiliary information was obtained as to what portion of its delivery points were business related…Five strata were defined based on this proportion." Please identify the proportions for each of the five defined strata.

For Questions 3-8, please refer to Proposal Eleven, Appendix A: Technical Notes (Appendix A).

3.   On page 2 of Appendix A (Section 2.2, "Proposed Stratification"), the Postal Service states: "A delivery point is categorized as either residential or business, and the numbers of residential and business delivery points are available for each digital MEP."

    a. Please refer to any information source (*e.g.* a special study) that would prove a rationale to distinguish between business and residential delivery points in a proposed stratification.

    b. Please provide a reason for not further categorizing business/residential delivery points into additional groups (*e.g.* City delivery, Rural, PO Boxes, Highway

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[2] Docket No. RM2015-11, Order on Analytical Principles Used in Periodic Reporting (Proposal Three), September 30, 2015 at 3 (Order No. 2739).

contract routes). Please indicate if the Postal Service performed any study/quantitative analysis prior to making such decision.

   c. Please quantify a potential impact on the stratification (and on the statistical estimator) if the delivery points are classified differently.

4.   On page 4 of Appendix A (Section 3.1, "Current Estimator"), the Postal Service states: "Let t denote "total 1-C SP revenue" and $\hat{t}$ be the current production estimator of t, than we have

$$\hat{t} = \sum_{j=1}^{J} \sum_{h=1}^{Hj} \hat{t}_{jh} \qquad\qquad (3.1)$$

…An approximate value of variance of $\hat{t}$ is of the form

$$V(\hat{t}) = \sum_{j=1}^{J} \sum_{h=1}^{Hj} V(\hat{t}_{jh}) \qquad\qquad (3.3)."$$

By using certain properties or definitions, please prove the equation (3.3).

5.   On page 10 of Appendix A (Section 3.3, "Comparative Advantage"), the Postal Service gives some predictions regarding the CVs [coefficient of variance] for 1-C SP [First-Class Single-Piece] volume and revenue, which will be reduced by 15-20% and 5-10%, respectively. Please provide the spreadsheets with the data and calculations underlying these conclusions.

6.   On pages 10-11 of Appendix A (Section 3.3, "Comparative Advantage"), the Postal Service provides estimates for the "critical correlation" and "actual correlation" calculated by Period in FY 2015. On page 10 of Appendix A (Section 3.3, "Comparative Advantage"), the Postal Service claims "that the ratio estimator will have a lower variance than the expansion estimator if and only if

$$\rho \geq \frac{1}{2} \frac{\text{(CV of average EOR count)}}{\text{(CV of average revenue of } 1-\text{C SP)}} \qquad (3.10) \quad,"$$

where, "CV" is a coefficient of variation; "EOR" means End of Run, "1-C SP" represents First Class Single-Piece [Mail], and ρ is the actual correlation between "EOR count" and "1-C SP revenue". The left-hand side and the right-hand side of the inequality

(3.10) respectively represent "actual correlation" and "critical correlation" [between "EOR count" and "1-C SP revenue"]. *See* Appendix A at 10.

    a. Please provide the spreadsheets with the ODIS-RPW data that the Postal Service used to make the estimates presented in the Table on page 11.

    b. Please include copies of the computer runs (with the resulting outputs) performed in the process of developing these estimates.

    c. Has the Postal Service initiated any type of sensitivity analysis to determine a scale of potential variation in the provided correlation estimates (*i.e.* if different postal quarters and/or fiscal years are selected for the Period)? Please provide any results of such analysis, if available.

    d. Please indicate if the Postal Service allows for any possibility that under certain conditions and/or in a certain Period, the inequality (3:10) becomes invalid. Please explain the rationale for your response.

7.   On page 10 of Appendix A (Section 3.3, "Comparative Advantage"), while discussing the potential benefit of Proposal Eleven, the Postal Service states that to quantify "the magnitude of the reduction in bias and variability" is "difficult without conducting an elaborate simulation study". Please indicate if the Postal Service is planning to conduct such study in the [near] future.

8.   On page 10 of Appendix A (Section 3.3, "Comparative Advantage"), the Postal Service expresses expectations regarding "some reduction in variance through stratification based on BDP [Business Delivery Points]". Please provide any possible additional clarification for the statement above.

          Respectfully submitted,

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